Jacob Smith

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Education

BS – Environmental Science and Technology: Ecological Design, University of Maryland, College Park 2014

Professional Experience

Mr. Smith is a full time Staff Scientist with SCS’ Midlothian, Virginia office. He works closely with SCS’s regional clients and is responsible for working on environmental engineering projects related to landfill gas design, CQA, and compliance at solid waste management facilities.

Since starting with SCS in September 2019, his work efforts have focused on landfill and LFG studies, landfill gas system design, CQA, regulatory reporting, monitoring projects, and training technicians on field equipment. Mr. Smith has been involved with LFG control and remediation projects throughout Virginia and North Carolina. Prior to his work at SCS, Mr. Smith worked as a Lab Technician/Chemist at Chesapeake Environmental Lab in Stevensville, MD for five years, where he was primarily responsible for performing state-compliance water chemistry testing on storm, drinking, and waste water samples.

Mr. Smith has worked on multiple sites since starting at SCS in 2019, and has performed a variety of monitoring projects at these locations.

Landfill CQA Projects

**South Wake County Landfill, Wake County, NC.** Assisted and Performed CQA on 2019 LFG system expansion project. Oversaw installation of vertical wells on the top deck of the landfill.

**Shoosmith Sanitary Landfill, Chesterfield County, VA.** Performed CQA on 2020 LFG system expansion project. Oversaw installation of vertical wells within multiple cells of the landfill.

Landfill Gas Management

**Blue Ridge Resource Authority Landfill, Rockbridge County, VA.** Performed liquid level, probe and interior air monitoring. Develops monitoring reports and prepares regulatory compliance notifications to VDEQ.

**Hanes Mill Road Landfill, Winston-Salem, NC.** Performed surface emissions monitoring on closed portions and expansion areas of landfill. Develops monitoring reports and prepares regulatory compliance notifications to NCDEQ.

**Shoosmith Sanitary Landfill, Chesterfield County, VA.** Performed surface emission, odor, and liquid level monitoring. Performed monthly wellfield monitoring and LFG system troubleshooting to improve collection efficiency. Assisted with preparation of Semi-Annual Reports and training Shoosmith field crew. Reviews and organizes monthly data, prepares regulatory compliance notifications to VDEQ. Assisted in developing and designing an LFG system expansion in 2020 and 2021.

**South Wake Landfill, Wake County, NC.** Performed surface emissions, probe, and interior air monitoring. Develops monitoring reports and prepares regulatory compliance notifications to NCDEQ.

**North Wake Landfill, Wake County, NC.** Performed surface emissions monitoring on closed portions of the landfill. Performed probe and interior air monitoring. Assisted with monitoring and tuning of the perimeter migration control system on the closed unlined portion of the landfill. Develops monitoring reports and prepares regulatory compliance notifications to NCDEQ. Performed investigation on closed unlined landfill to identify source of LFG boundary probe exceedance in 2020.

**Concord Turnpike Regional Landfill, Lynchburg, VA.** Assisted SCS Field services with replacement of LFG system wellheads. Performed wellfield monitoring and liquid level monitoring

**Region 2000 Regional Landfill Livestock Road Facility, Rustburg, VA.** Assisted with drawings for horizontal collector and LFG header piping installed in 2021. Prepare liquid level dewatering pump analysis on a semi-annual basis.

**City of Bristol Virginia Landfill, Bristol, VA.** Assisted with reconnecting vertical extraction well, installing sample ports on cleanouts, and performing flow test to identify vapor lock in LFG header piping.

Landfill Engineering

**Swift Creek Renewables** Designed, and assembled drawings for updated LFG wellfield layout at Shoosmith Sanitary Landfill for Morrow Energy. Assisted with well schedule creation and inventory cost estimates.

Waste Water Compliance Testing

**Chesapeake Environmental Lab, Stevensville, MD.** Performed collection and analysis of wastewater from regional waste water treatment plants. Analytical testing included the use of an atomic absorption spectrophotometer, calorimetry, titrations, and benchtop meter testing for various constituents including but not limited to: BOD, COD, solids, lead, copper, arsenic, nitrates, phosphorus, and ammonia. Performed bacteriological testing on river water samples before, during, and after storm events.